

Great ShakeOut 2010

Exercise Survey Summary Addendum

Lawrence Berkeley National Laboratory conducted a site wide drill titled: 'Great ShakeOut 2010'. The drill was conducted on Thursday, October 21st, 2010, at 10:00 a.m. The purpose of the drill was to validate the effectiveness of the emergency response organization in accordance with the site's emergency plan and procedures and the DOE Order 151.1C.

The goal of the drill was to evaluate the LBNL employees' ability to implement protective actions - Drop, Cover, Hold and Evacuate and the Building Emergency Team (BET) to facilitate that evacuation.

Evaluation of the Great ShakeOut drill was conducted using two methods; a survey of all participants and an on-scene team of trained evaluators focused on one building. An electronic survey was sent out to all Lab employees via a Level 1 email. The responses were automatically tallied and then analyzed. The on-scene evaluation was provided by eight trained evaluators at Building 90 complex. This analysis of the survey data is an addendum to the exercise After Action Report. The data contained in this analysis does not alter the After Action Report's conclusions. The 10/21/10 Great ShakeOut After Action Report includes information gathered by both evaluation processes plus the exercise objectives and improvement items and can be found on the EH&S Emergency Services website (<http://www.lbl.gov/ehs/ep/files/aar.shtml>).

Exercise Scenario

LBNL participated in the annual State of California Great ShakeOut earthquake drill. The drill was based on an earthquake rupturing on a nearby fault. All LBNL employees were to drop, cover, and hold and then evacuate buildings. Building Emergency Teams (BET) were activated to assist employees in the evacuation including monitoring evacuation routes, sweeping the building to ensure everyone was evacuated and gathering emergency gear. After evacuating, the employees were to proceed to the Emergency Assembly Areas and wait for further instructions. Upon evacuating the building the BET Leaders conducted crowd control, traffic control and reported the building status to the Emergency Operations Center. Once the radio status checks had been completed, staff were allowed to reenter the buildings. Checking building status prior to allowing the building to be reentered is the procedure that is used during a real evacuation.

Summary of Data Analysis

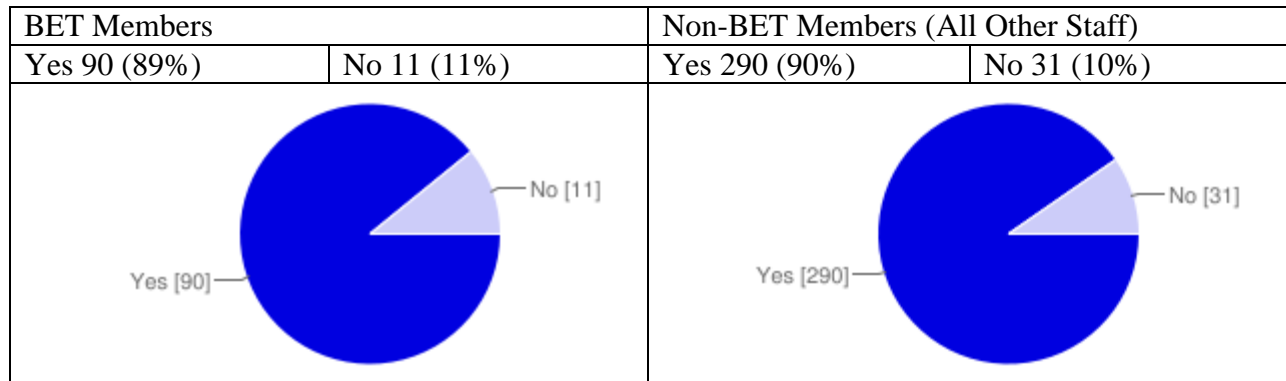
The data is divided into two groups of respondents; BET Members and Non-BET Members representing all other LBNL staff and guests. While there may have been lab visitors participating in the exercise, visitors were not included in the survey. There were a total of 422 respondents to the survey; 101 responses were from BET Members and 321 responses from Non-BET Members. Responses were received observing 29 BET teams in action representing 86% of the BET teams.

Questions 1-5 were observed and assessed similarly by all survey respondents; BET Members and Non-BET Members. Question 6 was used to identify the BET Members from the Non-BET Members participating in the drill. The responses to questions 7-16 are distinguished with marked difference in how the respondents viewed the exercise. The selection of “did not observe” was used quite often notably by the Non-BET staff. This is an expected response since untrained Non-BET staff would not have necessarily known to look for specific evacuation actions. BET staff, on the other hand, are trained to perform these tasks and would have noticed whether or not they were performed properly. It is noteworthy therefore when a Non-BET Member did notice when a specific evacuation task was being performed. Additionally, Non-BET staff may have already evacuated the building prior to the BET members beginning the building sweeps, elevator or stairwell monitoring, removal of equipment, and would not have been able to observe any of the tasks.

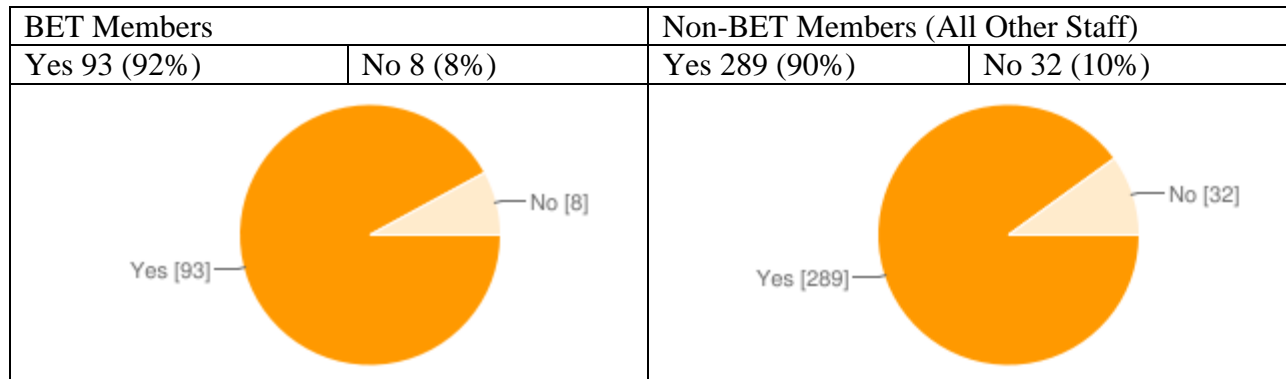
1. What building were you in during the drop, cover, hold and evacuate drill?

1, 2, 5, 6, 7, 15, 26, 41, 46, 46A, 47, 48, 50, 50A, 50B, 50C, 50E, 50F, 51, 51A, 55, 56A, 56W, 58, 62, 64, 65, 65A, 66, 67, 69, 70, 70A, 71, 71A, 71B, 71C, 71D, 71J, 71P, 71W, 71X, 72, 72X, 75, 75B, 76, 76L, 77, 80, 83, 84, 85, 85B, 86, 88, 90, 90A, 90C, 90F, 90G, 90H, 90J, 90K, 90P, 100, 300, 310, 400, 943, 977, and 978.

2. Did you hear the public address system announcing the drill?

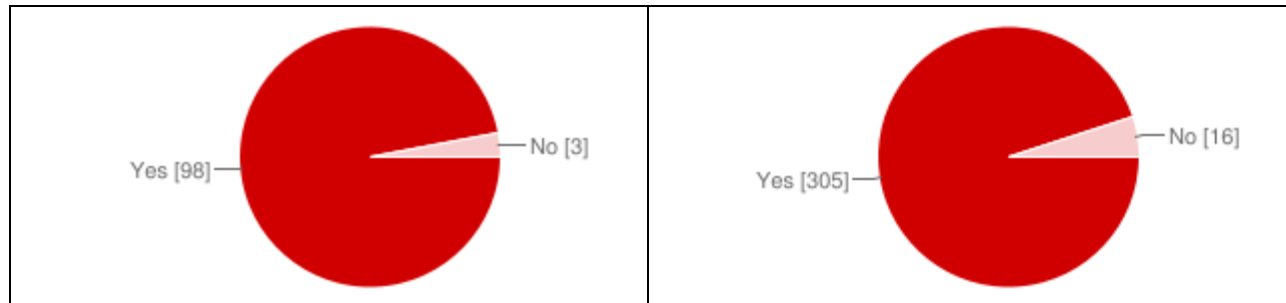


3. Did you drop, cover and hold during the drill?

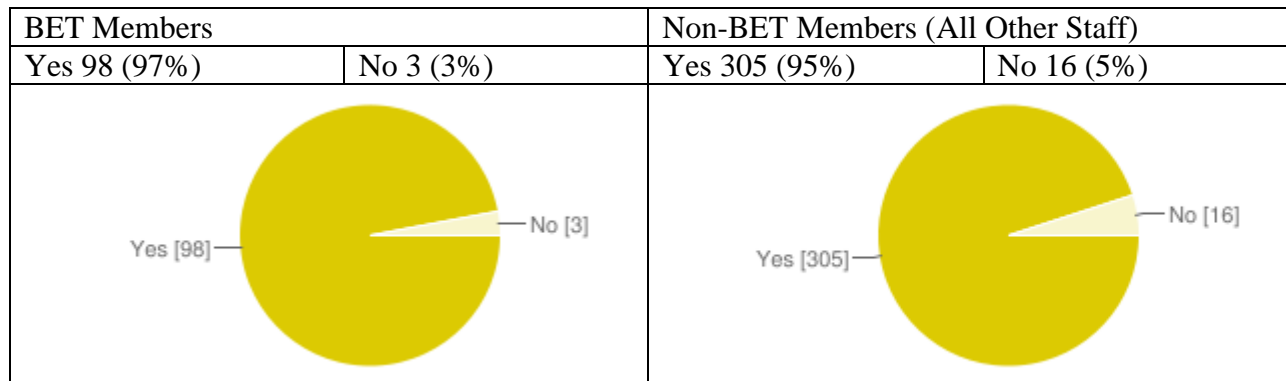


4. Did you evacuate the building?

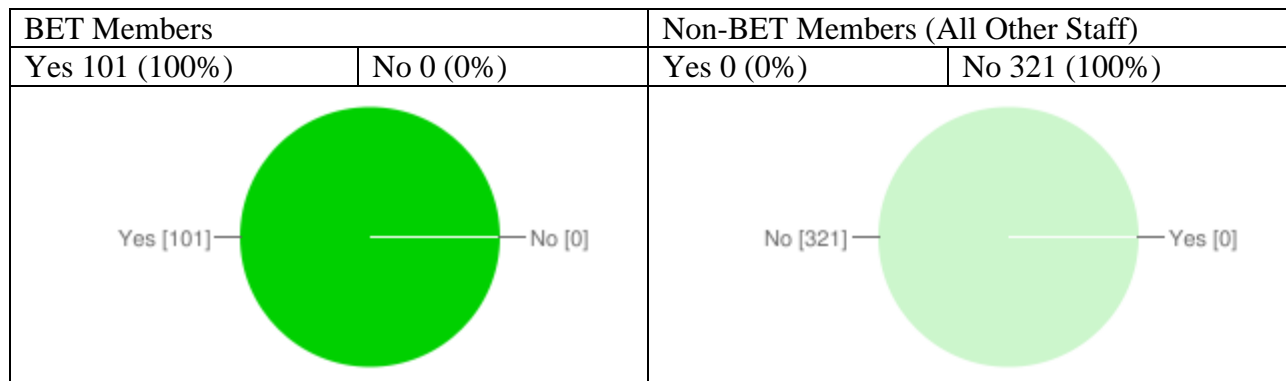
BET Members		Non-BET Members (All Other Staff)	
Yes 98 (97%)	No 3 (3%)	Yes 305 (95%)	No 16 (5%)



5. Did you evacuate to a designated emergency assembly area for the building that you evacuated?

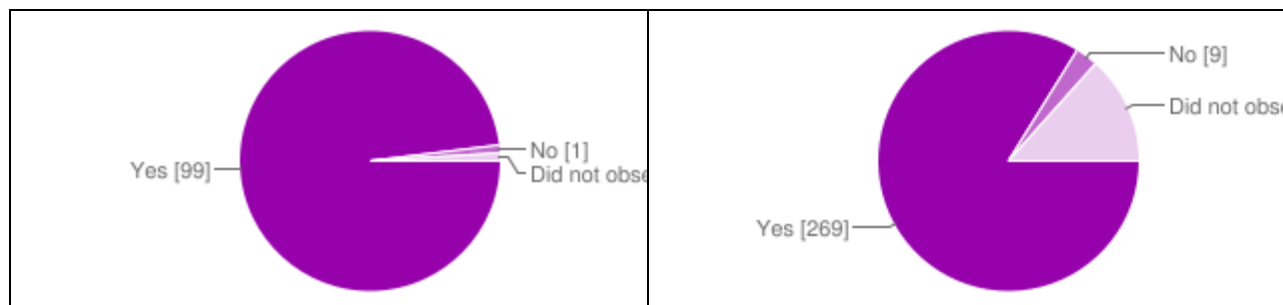


6. Are you a member of the Building Emergency Team (BET)?

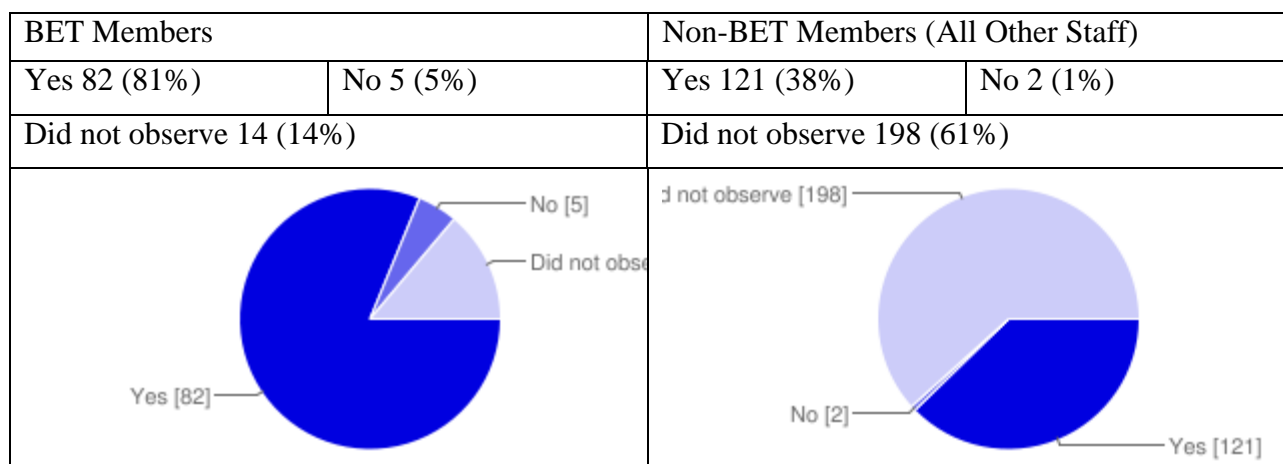


7. Did BET members put on their protective equipment?

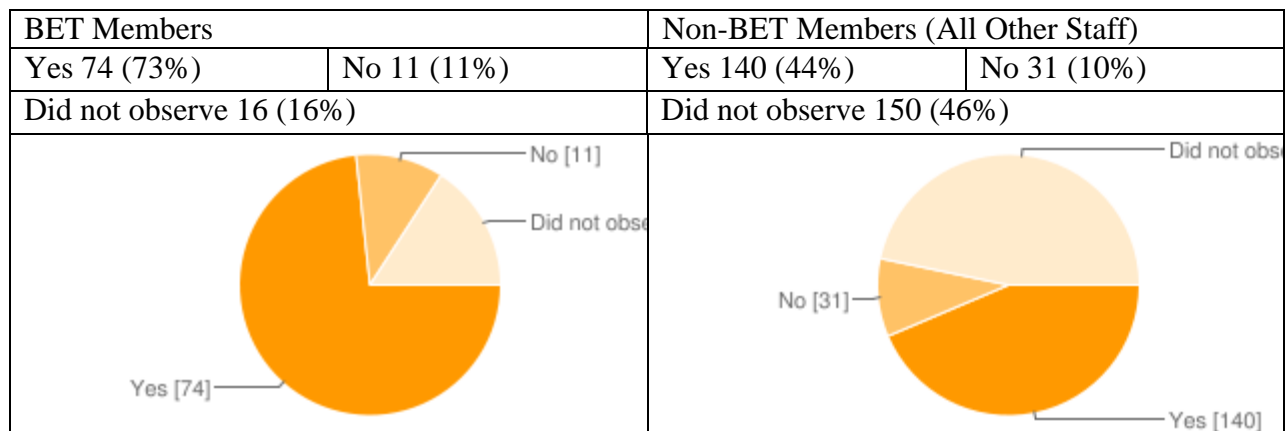
BET Members		Non-BET Members (All Other Staff)	
Yes 99 (98%)	No 1 (1%)	Yes 269 (84%)	No 9 (3%)
Did not observe 1 (1%)		Did not observe 43 (13%)	



8. Did BET members remove emergency radios from the building?

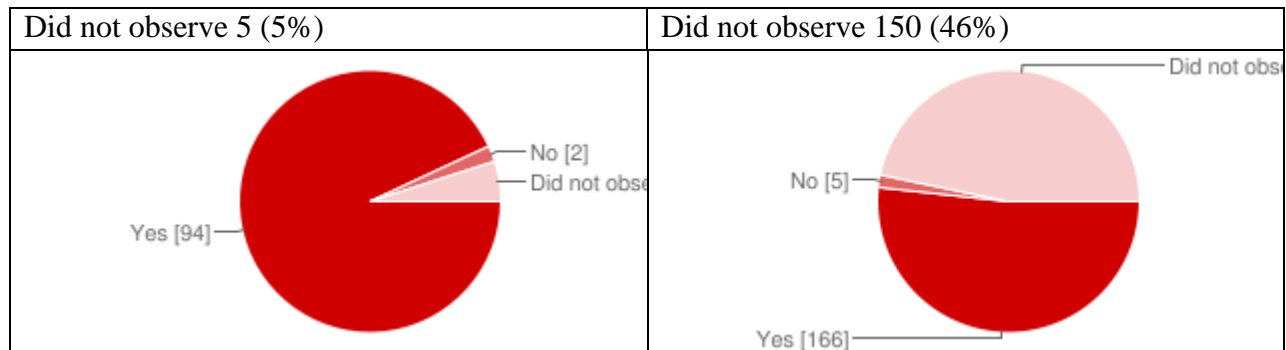


9. Did you see trauma kits at the Emergency Assembly Area?

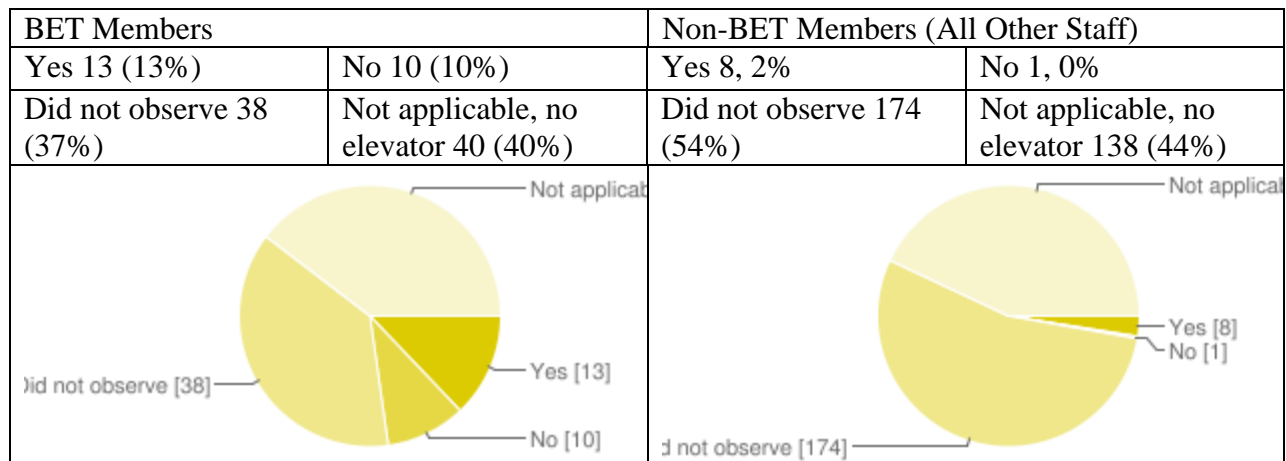


10. Did BET members conduct a sweep of the building?

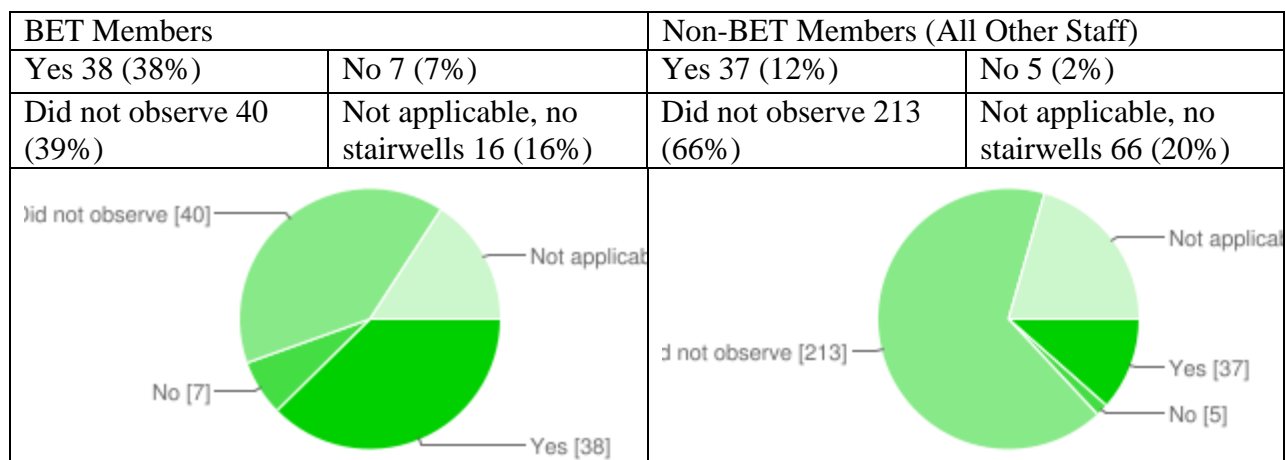
BET Members		Non-BET Members (All Other Staff)	
Yes 94 (93%)	No 2 (2%)	Yes 166 (52%)	No 5 (2%)



11. Did BET members monitor the elevator(s) or was there a sign posted stating not to use the elevator(s) during the evacuation?

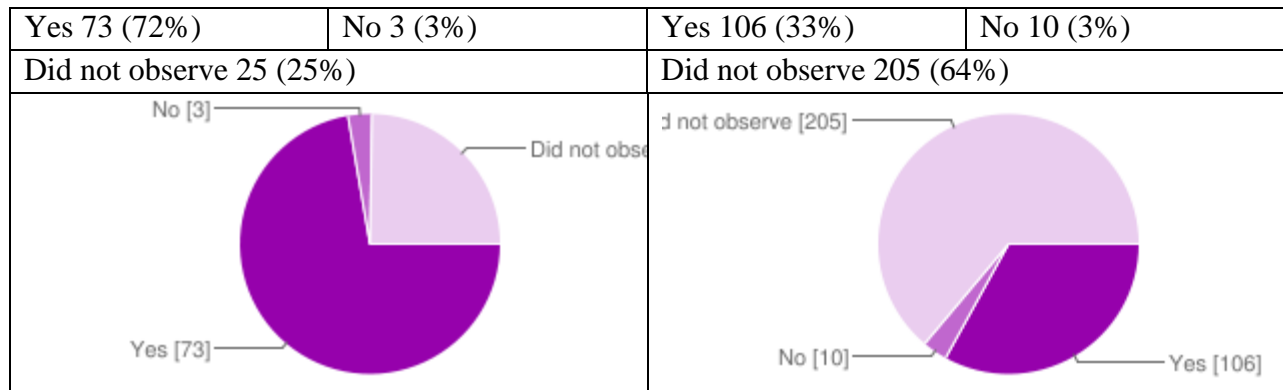


12. Did BET members monitor the stairwells for safe egress?

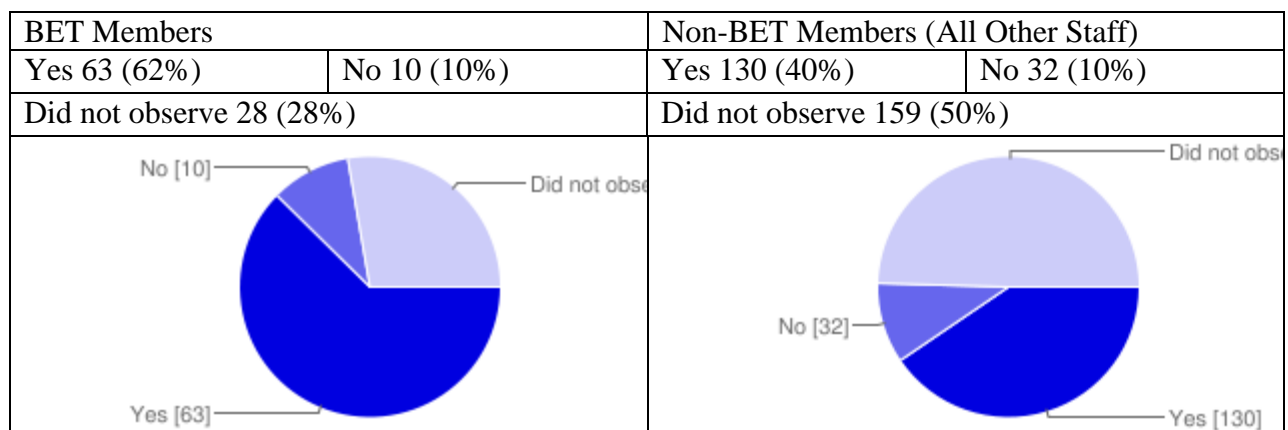


13. Did BET members monitor the exits for safe egress?

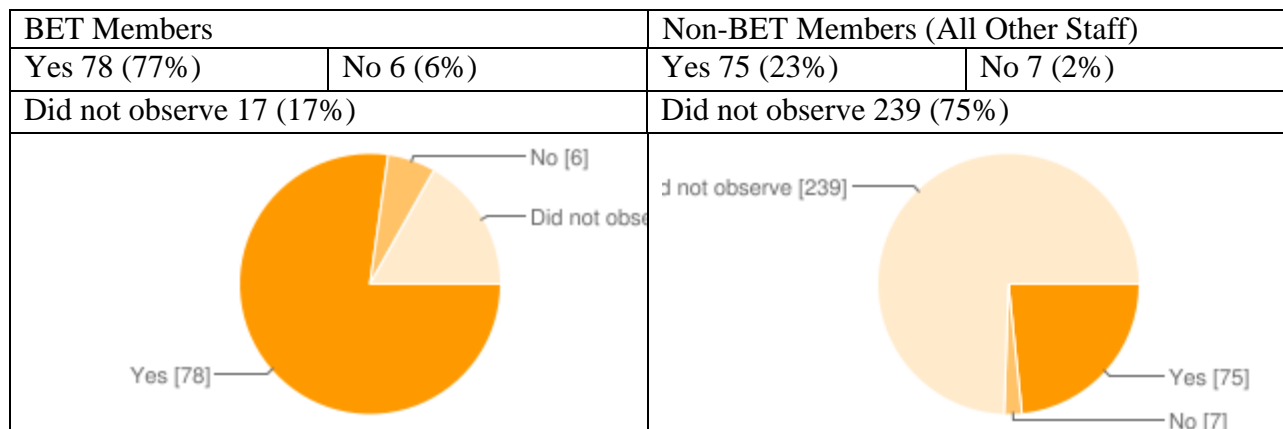
BET Members	Non-BET Members (All Other Staff)
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14. Were measures to control re-entry to the building put in place?

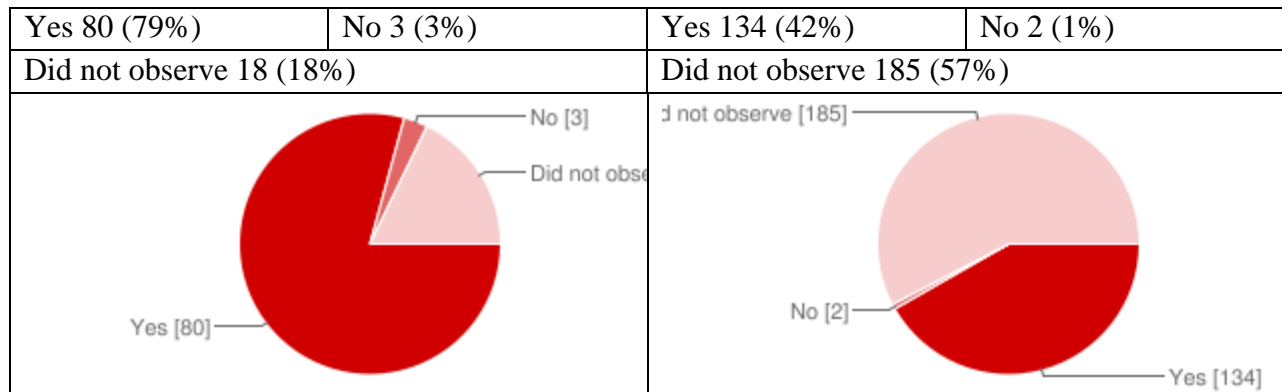


15. Did BET Lead(s) verify areas searched, overall status of floors, injured or missing persons?

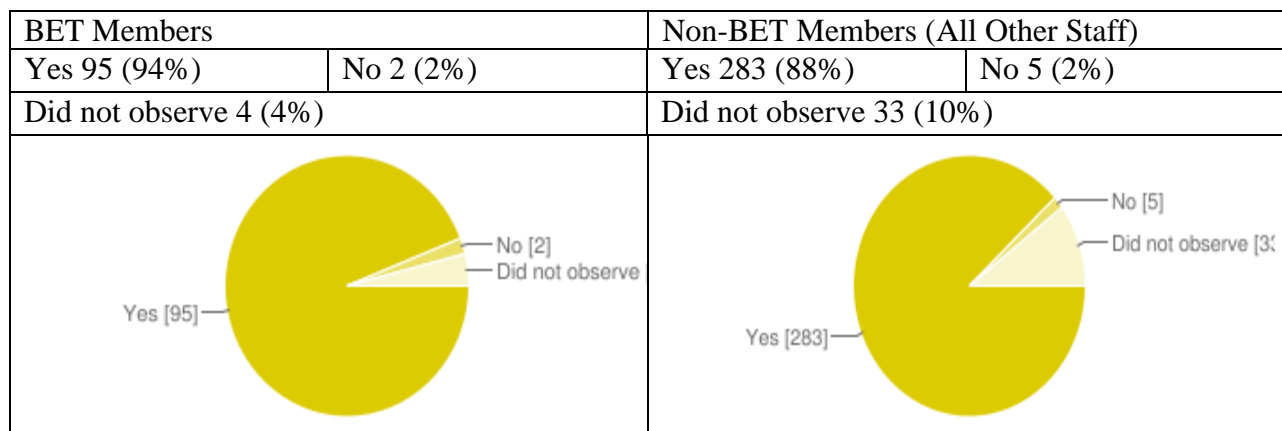


16. Did BET Lead(s) communicate with the Emergency Operations Center, during the radio check, to secure an "all clear" to re-enter the building?

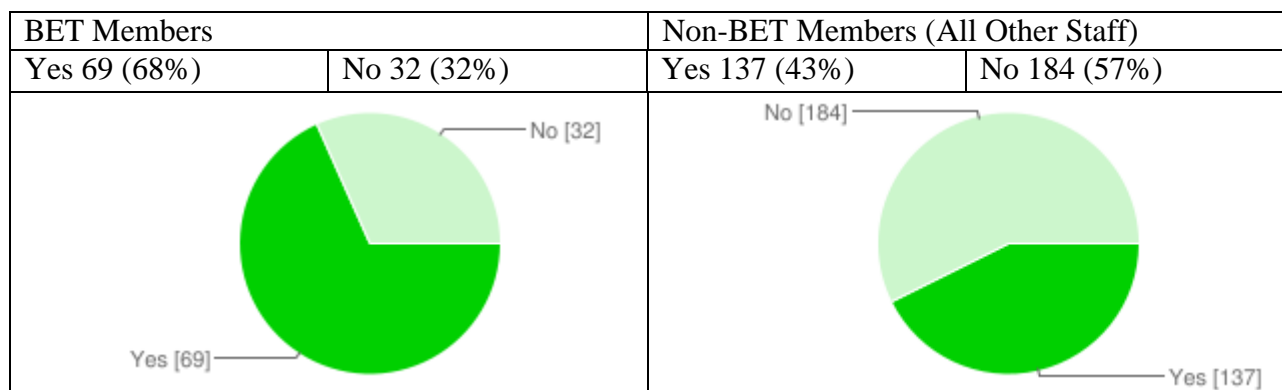
BET Members	Non-BET Members (All Other Staff)
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17. Did BET Lead(s) communicate with the employees that they could re-enter the building?



18. Have you taken EHS 135, All Hazards Awareness Training?



19. If you have taken EHS 135, did you find the evacuation information useful?

